

Ness County

Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors 6/27/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 11 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Ness County economy.¹

These 11 sectors have a total direct output of approximately **\$67.7 million** and support **564 jobs** in Ness County. Running the model for all 11 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Ness County Economy					
Contribution Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵
Direct Effect	563.9	21.09%	\$12,882,503	10.33%	\$67,658,209
Indirect Effect	90.0	3.36%	\$6,603,932	5.30%	\$13,693,610
Induced Effect	37.8	1.41%	\$2,326,693	1.87%	\$4,582,811
Total Effect	691.6	25.87%	\$21,813,129	17.50%	\$85,934,631

As shown in the above table, agriculture, food, and food processing sectors support **692 jobs**, or **25.87%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 11 agriculture, food, and food processing sectors is approximately **\$21.8 million**, or **17.5% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelptest.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **359 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Ness County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	358.8	\$26,954,222
Grain farming	132.8	\$31,354,086
All other crop farming	42.6	\$2,144,207
Wholesale trade	26.4	\$5,122,729
Extraction of natural gas and crude petroleum	11.9	\$1,924,338
Farm machinery and equipment manufacturing	11.3	\$4,016,860
Truck transportation	8.6	\$1,522,998
Monetary authorities and depository credit intermediation	7.2	\$1,532,200
Marketing research and all other miscellaneous professional, scientific, and technical services	7.1	\$193,016
Services to buildings	6.3	\$133,397

The grain farming sector directly contributes approximately **\$31.4 million** to the Ness County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Grain farming	132.8	\$31,354,086
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	358.8	\$26,954,222
Wholesale trade	26.4	\$5,122,729
Farm machinery and equipment manufacturing	11.3	\$4,016,860
All other crop farming	42.6	\$2,144,207
Extraction of natural gas and crude petroleum	11.9	\$1,924,338
Animal, except poultry, slaughtering	2.6	\$1,699,165
Monetary authorities and depository credit intermediation	7.2	\$1,532,200
Truck transportation	8.6	\$1,522,998
Owner-occupied dwellings	0.0	\$1,206,062

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Ness County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	0.4	\$241,555.97
Grain farming	132.8	\$31,354,085.92
All other crop farming	42.6	\$2,144,207.24
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	358.8	\$26,954,221.73
Poultry and egg production	0.1	\$30,623.88
Animal production, except cattle and poultry and eggs	4.0	\$315,872.28
Support activities for agriculture and forestry	4.3	\$322,305.41
Animal, except poultry, slaughtering	2.6	\$1,699,165.46
Bread and bakery product, except frozen, manufacturing	1.6	\$176,363.66
Farm machinery and equipment manufacturing	11.3	\$4,016,859.53
Veterinary services	5.4	\$402,947.84

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Ness County, the retail sector was omitted.